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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,317	07/18/2003	Ashvin D. Desai	87344.1524	2539

7590 04/29/2005

Baker & Hostetler LLP
Washington Square, Suite 1100
1050 Connecticut Avenue, N.W.
Washington, DC 20036

EXAMINER	
SAVAGE, MATTHEW O	

ART UNIT	PAPER NUMBER
1724	

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/621,317	DESAI ET AL.	
	Examiner	Art Unit	
	Matthew O. Savage	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The drawings are objected to because:

The drawing corrections to FIGS. 2-3 filed on 2-14-05 have been approved.

The drawing corrections to FIG. 4 has not been approved for the reasons set forth below.

The lead line for element 28 is incorrect in FIG. 4 (the lead line should be redrawn so that it points out the seat adjacent the entry port 36);

The lead line for element 116 is incorrect in FIG. 4 (the lead line should be redrawn so as to point out the seat adjacent exit port 38).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 1, and 4-6, it is unclear as to how the first and second strainer chambers are formed since no structure for defining the chambers has been recited in those claims.

It is unclear as to how the first chamber and the second chamber recited in claim 1 relate to the upper chamber and the lower chamber recited in claim 2.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Oliver et al.

With respect to claim 1, Oliver et al disclose discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a first chamber (e.g., containing valve 17) disposed within the housing between the first port and the third port and in communication with the inlet port, a second chamber (e.g., containing valve 18) disposed within the housing between the second port and the forth port and in communication with the outlet port, a first three way ball valve 17 disposed in the first chamber for controlling flow between the first and third ports, and a second three-way

ball valve 18 disposed in the second chamber for controlling the flow between the second and fourth ports, and a coupling 19 for coupling the first three way valve 17 to the second three way valve 18 capable of causing the first three way ball valve and the second three way ball valve to move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, or entirely through the second strainer chamber 13, or through both the first strainer chamber 12 and the second strainer chamber 13 simultaneously since each valve includes a flow recess capable of being aligned with all of the ports simultaneously an intermediate position (see FIG. 2).

With respect to claim 2, Oliver et al disclose a divider disposed within the housing between the first three way ball valve 17 and the second three way ball valve 18 forming the first/upper and the second/lower chambers within the housing, the first and third ports communicating solely with the first/upper chamber and the second and fourth ports communicating solely with the second/lower chamber.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al in view of Elliott.

With respect to claim 3, Oliver et al disclose the first strainer chamber 12 and being formed unitarily with the housing but fail to specify the second strainer chamber as being detachably mounted to the housing. Elliott discloses the concept of providing a first strainer chamber and housing that are unitary (e.g., the left hand section including the inlet 4 and outlet 5 shown in FIG. 1 or FIG. 4) and a second strainer housing (e.g., the right hand section) that is detachably mounted to the housing and suggests that such an arrangement facilitates construction and repair of the filter. It would have been obvious to have modified the filter of Oliver et al so as to have included a housing that was unitary with the first strainer chamber and a second strainer chamber that was detachably mounted to the housing as suggested by Elliott in order to facilitate construction and repair of the filter.

With respect to claim 6, Oliver et al discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a valve control including a first three way ball valve 17 for controlling flow between the housing and first and third ports, and a second three-way ball valve 18 for controlling the flow between the second and fourth

ports, a divider disposed within the housing between the first three-way ball valve 17 and the second three-way ball valve 18 forming upper and lower chambers in the housing, the first and third ports communicating solely with the upper chamber and the second and fourth ports communicating solely with the lower chamber within the housing, and a coupling 19 for coupling the first three way ball valve 17 to the second three way ball valve capable of causing the first three way ball valve and the second three way ball valve to move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, or entirely through the second strainer chamber, the first strainer chamber 12 being formed unitarily with the housing or through both the first strainer chamber and the second strainer chamber simultaneously since each valve includes a flow recess capable of being aligned with all of the ports simultaneously an intermediate position (see FIG. 2). Oliver et al fails to specify the limitation of the second strainer chamber as being detachably mounted to the housing. Elliott discloses the concept of providing a first strainer chamber and housing that are unitary (e.g., the left hand section including the inlet 4 and outlet 5 shown in FIG. 1 or FIG. 4) and a second strainer housing (e.g., the right hand section) that is detachably mounted to the housing and suggests that such an arrangement facilitates construction and repair of the filter. It would have been obvious to have modified the filter Oliver et al so as to have included a housing that was unitary with the first strainer chamber and a second strainer chamber that was detachably mounted to the housing as suggested by Elliott in order to facilitate construction and repair of the filter.

Claims 1, 2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al in view of Rea et al.

With respect to claim 1, Oliver et al discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a first chamber (e.g., containing valve 17) disposed within the housing between the first port and the third port and in communication with the inlet port, a second chamber (e.g., containing valve 18) disposed within the housing between the second port and the forth port and in communication with the outlet port, a first three way ball valve 17 disposed in the first chamber for controlling flow between the first and third ports, and a second three-way ball 18 valve disposed in the second chamber for controlling the flow between the second and fourth ports, and a coupling 19 for coupling the first three way valve 17 to the second three way valve 18 capable of causing the first three way ball valve and the second three way ball valve to move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, entirely through the second strainer chamber. Oliver et al fail to specify flow through the first strainer chamber and the second strainer chamber simultaneously. Rea et al disclose an analogous filter including a ball valve 20 and suggests that such ball valve permits flow through both

strainer chambers simultaneously thereby providing an increased flow rate of filtered fluid (see FIG. 6c). It would have been obvious to have modified the filter of Oliver et al so as to have included ball valves as suggested by Rea et al in order to permit flow through both strainer chambers simultaneously to increase the flow rate of filtered fluid.

With respect to claim 2, Oliver et al disclose a divider disposed within the housing between the first three way ball valve 17 and the second three way ball valve 18 forming the first/upper and the second/lower chambers within the housing, the first and third ports communicating solely with the first/upper chamber and the second and fourth ports communicating solely with the second/lower chamber.

With respect to claim 4, Oliver et al discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a first chamber (e.g., containing valve 17) disposed within the housing between the first port and the third port and in communication with the inlet port, a second chamber (e.g., containing valve 18) disposed within the housing between the second port and the forth port and in communication with the outlet port, a valve control including a first three way valve 17 disposed in the first chamber for controlling flow between the first and third ports, and a second three-way valve 18 disposed in the second chamber for controlling the flow

between the second and fourth ports, and a coupling 19 for coupling the first three way valve 17 to the second three way valve 18 capable of causing the first three way ball valve and the second three way ball valve to move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, entirely through the second strainer chamber, the coupling including a first square recess formed in the first three way valve, a second square recess formed in the second three way valve, and a shaft 19, the shaft including first and second square ends with the first square end being received in the first square recess and the second square end being received in the second square recess. Oliver et al fail to specify flow through the first strainer chamber and the second strainer chamber simultaneously. Rea et al disclose an analogous filter including a ball valve 20 having a notch 21 and a shaft having a flange 15b received in the notch and suggests that such ball valve design permits flow through both strainer chambers simultaneously thereby providing an increased flow rate of filtered fluid (see FIG. 6c). It would have been obvious to have modified the filter of Oliver et al so as to have included ball valves including notches as suggested by Rea et al in order to permit flow through both strainer chambers to increase the flow rate of filtered fluid.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al in view of Rea et al as applied to claim 1 above, and further in view of Elliott.

With respect to claim 3, Oliver et al and Rea et al disclose the first strainer chamber 12 and being formed unitarily with the housing but fail to specify the second strainer chamber as being detachably mounted to the housing. Elliott discloses the

concept of providing a first strainer chamber and housing that are unitary (e.g., the left hand section including the inlet 4 and outlet 5 shown in FIG. 1 or FIG. 4) and a second strainer housing (e.g., the right hand section) that is detachably mounted to the housing and suggests that such an arrangement facilitates construction and repair of the filter. It would have been obvious to have modified the combination suggested by Oliver et al and Rea et al so as to have included a housing that was unitary with the first strainer chamber and a second strainer chamber that was detachably mounted to the housing as suggested by Elliott in order to facilitate construction and repair of the filter.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al in view of Rea et al and Elliott.

With respect to claim 5, Oliver et al discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a valve control including a first three way valve 17 for controlling flow between the first and third ports, and a second three-way valve 18 for controlling the flow between the second and fourth ports, and a coupling 19 for coupling the first three way valve 17 to the second three way valve capable of causing the first three way ball valve and the second three way ball valve to

move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, entirely through the second strainer chamber, the first strainer chamber 12 being formed unitarily with the housing, a divider (e.g., the portion between the ball valves) disposed within the housing forming upper and lower chambers within the housing, the coupling including a first square recess formed in the first three way valve, a second square recess formed in the second three way valve, and a shaft 19, the shaft including first and second square ends with the first square end being received in the first square recess and the second square end being received in the second square recess, the shaft extending through the divider. Oliver et al fail to specify flow through the first strainer chamber and the second strainer chamber simultaneously. Rea et al disclose an analogous filter including a ball valve 20 having a notch 21 and a shaft having a flange 15b received in the notch and suggests that such ball valve design permits flow through both strainer chambers simultaneously thereby providing an increased flow rate of filtered fluid (see FIG. 6c). It would have been obvious to have modified the filter of Oliver et al so as to have included ball valves as suggested by Rea et al in order to permit flow through both strainer chambers to increase the flow rate of filtered fluid. Oliver et al and Rea et al fail to specify the limitation of the first strainer chamber being formed unitarily with the housing and second strainer chamber as being detachably mounted to the housing. Elliott discloses the concept of providing a first strainer chamber and housing that are unitary (e.g., the left hand section including the inlet 4 and outlet 5 shown in FIG. 1 or FIG. 4) and a second strainer housing (e.g., the right hand section) that is detachably mounted to the housing and suggests that such an

arrangement facilitates construction and repair of the filter. It would have been obvious to have modified the combination suggested by Oliver et al and Rea et al so as to have included a housing that was unitary with the first strainer chamber and a second strainer chamber that was detachably mounted to the housing as suggested by Elliott in order to facilitate construction and repair of the filter.

With respect to claim 6, Oliver et al discloses a duplex strainer for straining a fluid comprising a housing having an inlet port 15 and an outlet port 16 (see FIGS. 1 and 2), a first strainer chamber 12 having first and second ports in separate fluid communication with the housing (e.g., the flow passages facing the valves 17 and 18, respectively), a second strainer chamber 13 having a third port (e.g., adjacent valve 17) and facing the first port and a fourth port (e.g., adjacent valve 18) facing the second port in separate fluid communication with the housing, a valve control including a first three way ball valve 17 for controlling flow between the housing and first and third ports, and a second three-way ball valve 18 for controlling the flow between the second and fourth ports, a divider disposed within the housing between the first three-way ball valve 17 and the second three-way ball valve 18 forming upper and lower chambers in the housing, the first and third ports communicating solely with the upper chamber and the second and fourth ports communicating solely with the lower chamber within the housing, and a coupling 19 for coupling the first three way ball valve 17 to the second three way ball valve capable of causing the first three way ball valve and the second three way ball valve to move in unison, and capable of causing fluid to flow either entirely through the first strainer chamber 12, or entirely through the second strainer

chamber, the first strainer chamber 12 being formed unitarily with the housing. Oliver et al fail to specify flow through the first strainer chamber and the second strainer chamber simultaneously. Rea et al disclose an analogous filter including a ball valve 20 design that permits flow through both strainer chambers simultaneously thereby providing an increased flow rate of filtered fluid (see FIG. 6c). It would have been obvious to have modified the filter of Oliver et al so as to have included ball valves as suggested by Rea et al in order to permit flow through both strainer chambers to increase the flow rate of filtered fluid. Oliver et al and Rea et al fail to specify the limitation of the second strainer chamber as being detachably mounted to the housing. Elliott discloses the concept of providing a first strainer chamber and housing that are unitary (e.g., the left hand section including the inlet 4 and outlet 5 shown in FIG. 1 or FIG. 4) and a second strainer housing (e.g., the right hand section) that is detachably mounted to the housing and suggests that such an arrangement facilitates construction and repair of the filter. It would have been obvious to have modified the combination suggested by Oliver et al and Rea et al so as to have included a housing that was unitary with the first strainer chamber and a second strainer chamber that was detachably mounted to the housing as suggested by Elliott in order to facilitate construction and repair of the filter.

Applicant's arguments filed on 2-14-05 have been fully considered but they are not persuasive.

Applicant argues that the filter of Oliver et al is not capable of causing fluid to flow through both the first and second strainer chambers simultaneously, however, it is held

that the filter of Oliver et al is capable of such a function since it includes a control wheel that can be rotated to a position in which the cut out portions of the valves are located adjacent all three ports at the same time (see FIG. 2). Applicant's argument that the flow in the apparatus of Oliver et al cannot be shifted to a section which is not pressurized is not correct since the cut out portions of the valves can be rotated to face either one or both of the chambers as long as the covers of both chambers are fully installed.

Applicant's argument that Oliver et al fail to disclose the first strainer chamber having first and second ports in separate fluid communication with the housing and a second strainer chamber having a third port opposing the first port and a fourth port which opposes the second port is not agreed with since such a structure is clearly shown in FIG. 1 of the Oliver et al reference and as explained in the rejection of claims 1, and 4-6 listed above.

Applicant's argument that Oliver et al fail to specify a coupling including a notch in the valve and the flange on the shaft is noted, however, such a coupling structure is clearly disclosed by Rea et al.

Applicant's argument that Rea et al and Elliot fail to disclose the first strainer chamber having first and second ports in separate fluid communication with the housing and a second strainer chamber having a third port opposing the first port and a fourth port which opposes the second port is noted, however, such limitations are clearly disclosed by Oliver et al as explained above.

Applicant's argument that Rea et al fail to disclose first and second valves including notches interconnected by flanges of a shaft is noted, however, it is held that

one skilled in the art would have substituted the notch/flange coupling of Rea et al for the square recess/square drive coupling of Oliver et al in order to incorporate the three way valve structure of Rea et al into the filter of Oliver et al.

Applicant argues that there is no motivation to combine Oliver et al with Rea et al, however, it is held that it would have been obvious for one skilled in the art to combine the valve design of Rea et al with the filter of Oliver in order to enable flow through both strainers simultaneously thereby providing an increased flow rate of filtered fluid.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O. Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Savage

Matthew O Savage
Primary Examiner
Art Unit 1724

mos
April 27, 2005

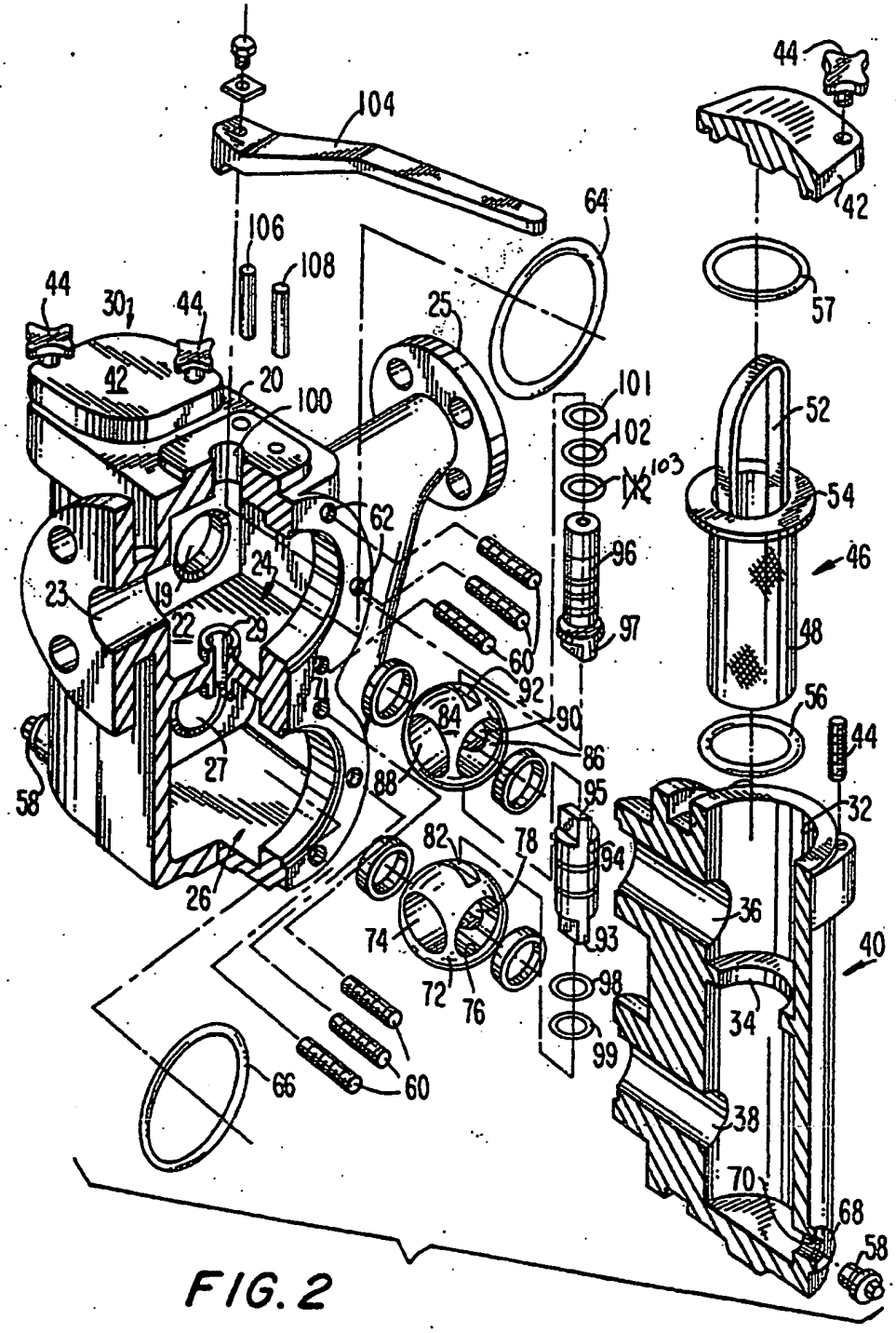

FIG. 2

OKay to enter.
MS

FIG. 3

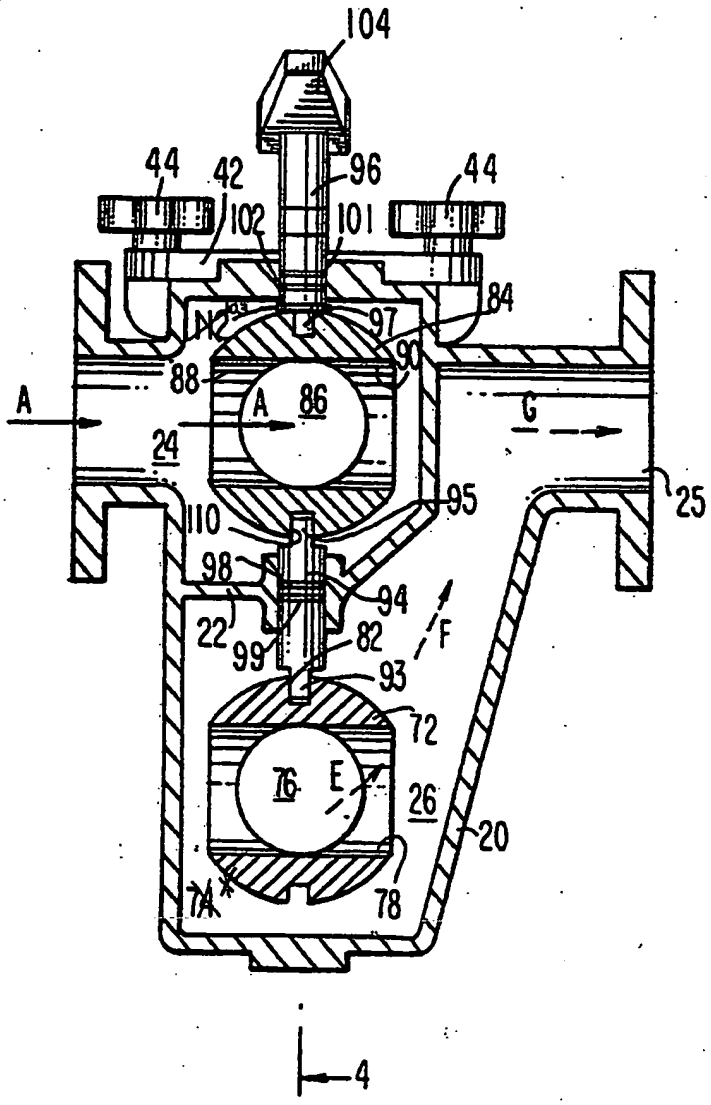

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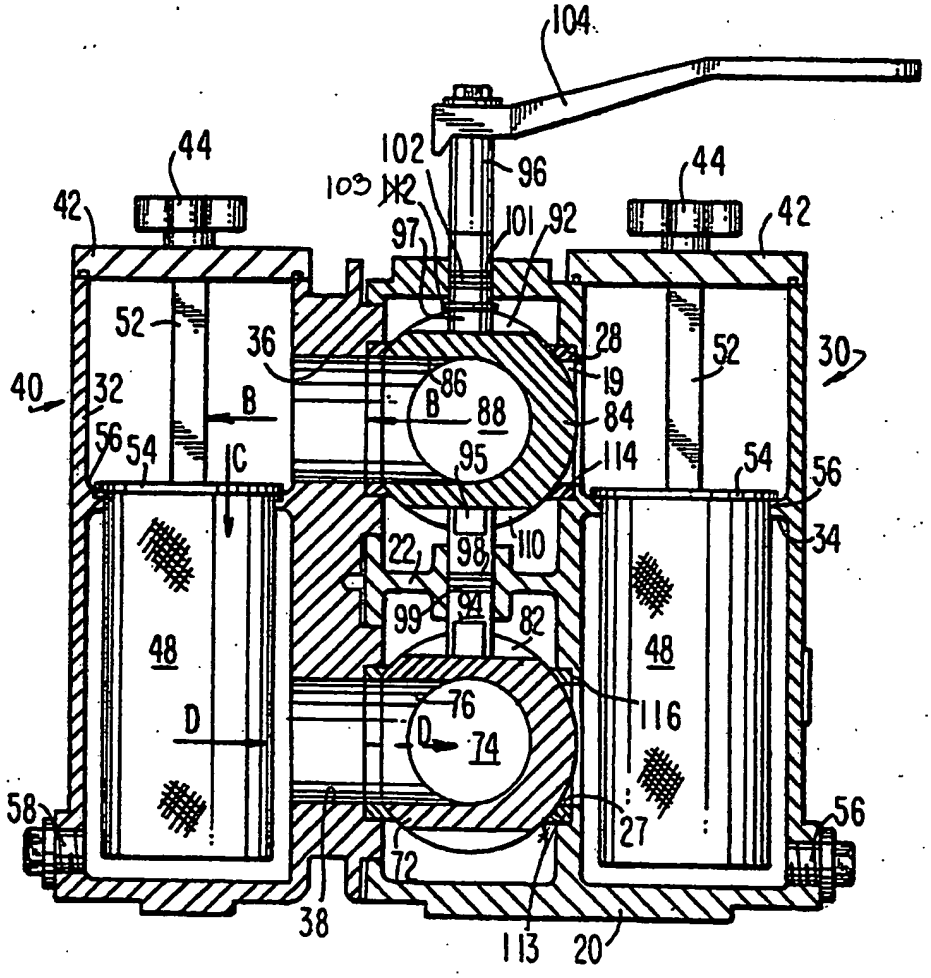
FIG. 4



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